CLAIMS (STATUS)

1. (Canceled) In a manually guided pointing operation in a display interface between a user and a computer,
the improvement for position control comprising in combination:
a structural intersection between a curved member on a manually moveable pointing member and a stationary surface,
said curved member having a peripheral surface in tangential contact with said stationary surface,
said curved member further having associated signal generating circuitry operable to move a cursor in said display in response to relative motion of said curved member with respect to said stationary surface at said intersection, and,
a frictional force component in the plane of said tangential contact in said intersection.

2. (Canceled) In a manually guided pointing operation in a display interface between a user and a computer,
the improvement for position control comprising in combination:
a first type structural intersection between a curved member on a manually moveable pointing member and a stationary surface,
said curved member having a peripheral surface in tangential contact with said stationary surface,
said curved member further having associated signal generating circuitry operable to move a cursor in said display in response to relative motion of said curved member with respect to said stationary surface at said intersection,
at least one second type structural intersection between a protrusion on said manually moveable pointing member and a contact location on said stationary surface,
each said protrusion having a peripheral surface in contact with said stationary surface, and,
a frictional force component at said contact location.

3. (Canceled) The improvement of claim 2 where said protrusion is a member attached to said manually moveable pointing member and taken from a group of a bump and roller.

4. (Canceled) The improvement of Claim 1 wherein said manually movable pointing member and said stationary surface are a computer mouse and mouse pad combination.

5. (Canceled) The improvement of claim 4 wherein said addition of a frictional force component is the result of the addition of a 20 - 50 % increase of the weight of said computer mouse.

6. (Canceled) The improvement of Claim 20 wherein said 20 - 50% weight increase is in the range of 20 - 50 grams.

7. (Canceled) The improvement of Claim 6 wherein said 20 -50% weight increase is in form of a localized group of metal particles positioned within a housing of said mouse.

8. (Canceled) The improvement of Claim 6 wherein said 20 - 50% weight increase is in the form of a weight member affixed to a housing of said mouse.

9. (Canceled) The improvement of claim 20 wherein said drag type frictional force component is the result of the addition of a combination of a magnetic member positioned on the surface of said computer mouse that is adjacent to said computer mouse pad and a ferromagnetic sheet positioned in said mouse pad.

10. (Canceled) The improvement of claim 20 wherein said drag type frictional force component is the result of the addition of an increase in coefficient of of protrusions on the surface of said computer mouse that are adjacent to said computer mouse pad at the surface of said computer mouse pad.

11. (Previously Presented) The improvement of claim 20 wherein said drag type frictional force component is a result of at least one additional addition taken from the group of the addition of a combination of a magnetic member positioned on the surface of said computer mouse that is adjacent to said computer mouse pad and a ferromagnetic sheet positioned in said mouse pad, and an addition of an increase in coefficient of friction between protrusions on the surface of said computer mouse that is adjacent to said computer mouse pad at the surface of said computer mouse pad thereby increasing static and kinetic coefficients of friction between said mouse and said mouse pad.

12. (Cancelled) In a computer control interface involving a display and a manually guided mouse on a mouse pad,
the improvement for position control comprising in combination:
a sphere member in said mouse rotatably contacting said mouse pad,
said sphere member having associated signal generating circuitry operable to move a cursor in said display in response to mouse movement measured by rotation of said sphere member with respect to said mouse pad, and,
a frictional force component addition in the plane of said mouse pad opposing said mouse movement.

13. (Canceled) The improvement of claim 12 wherein said frictional force component addition is a result of at least one taken from the group of incremental weights totaling about 20 - 50 % of the weight of said mouse, the addition of a combination of a magnetic member positioned on the surface of said mouse that is adjacent to said mouse pad and a ferromagnetic sheet positioned in said mouse pad and an addition of an increase in coefficient of friction between protrusions on the surface of said mouse that are adjacent to said mouse pad.

14. (Canceled) The improvement of claim 21 wherein said frictional force component of said mouse in turn is the result of the addition of an about 20 - 50 % in weight increase of said mouse in turn is produced by about 20 - 50 grams of metal particles positioned in the housing of said mouse.

15. (Canceled) The improvement of claim 21 wherein said frictional force component is the result of the addition of about 20 - 50 % in the weight of said mouse, and said weight increase is produced by affixing to the top of the housing of said mouse an element comprising one or more cloth or plastic covered metal discs totaling about 20 - 50 grams in weight.

16. (Canceled) The improvement of claim 12 wherein said frictional force component is the result of the addition of a combination of a magnetic member positioned on the surface of said mouse that is adjacent to said mouse pad and a ferromagnetic sheet positioned in said mouse pad.

17. (Currently Amended) The improvement of Claim ~~16~~ 21 wherein said magnetic member is adjustably positioned and said mouse is positioned on rollers away from said mouse pad.

18. (Canceled) In a manually guided pointing operation in a display interface between a user and a computer, the improvement for position control comprising in combination:
a structural intersection between a curved member on a manually moveable computer mouse and a mouse pad stationary surface,
said curved member having a peripheral surface in tangential contact with said stationary surface,
said curved member further having associated signal generating circuitry operable to move a cursor in said display in response to relative movement of said curved member with respect to said stationary surface at said intersection, and
providing a drag type frictional force component in the plane of tangential contact resulting from the addition of a 20 - 50% increase in weight of said computer mouse.

19 (Canceled) In a computer control interface involving a display and a manually guided mouse on a mouse pad,

the improvement for position control comprising in combination:

a sphere member in said mouse rotatably contacting said mouse pad,

said sphere member having associated signal generating circuitry operable to move a cursor in said display in response to mouse movement measured by rotation of said sphere member with respect to said mouse pad, and

a frictional force component addition in the plane of said mouse pad opposing said mouse movement, wherein, said frictional force component addition further is a result of at least one addition taken from the group of :

the addition of incremental weights totaling about 20 - 50% of the weight of said mouse,

the addition of a combination of a magnetic member positioned on the surface of said mouse that is adjacent to said surface of said mouse pad,

the addition of a ferromagnetic sheet positioned in said mouse pad and,

the addition of an increase in coefficient of friction between protrusions on the surface of said mouse member that are adjacent to said mouse pad.

20. (Currently Amended) In a manually guided pointing operation in a display interface between a computer and a manually movable mouse input member positioned by a user, said interface including an intersection between a curved member on said manually movable mouse input member and a mouse pad stationary surface,
said interface having associated signal generating circuitry operable to move a cursor in a display in response to relative motion of said curved member with respect to said mouse pad stationary surface, and wherein,
said curved member has a peripheral surface in tangential contact with said mouse pad stationary surface,
characterized by an improvement,
for positioning control of movement of said mouse input member on said mouse pad stationary surface, the addition of a 20 - 50% increase in weight of said mouse input member,
whereby said weight operates to enhance a drag type frictional force component, that resists said movement of said mouse on said mouse pad stationary surface;
wherein said 20 - 50% increase in weight is in the range of 20 - 50 grams, and wherein said 20 -50% weight increase is achieved by means selected from the group consisting of a localized group of metal particles positioned within a housing of said mouse, or a weight member affixed to a housing of said mouse.

Claim 21 (Currently Amended) In a computer control interface involving a display and a manually propelled guided relative movement of a mouse member on a surface of a mouse pad, said display having associated signal generating circuitry operable to move a cursor in said display in response to rotational movement of a sphere supporting member of said mouse member in contact with the surface of said mouse pad,

said manual propulsion and guidance in said relative movement of said mouse member on said surface of said mouse pad overcoming a drag type resistance frictional force component that operates to resist relative movement of said mouse over said surface of said mouse pad, characterized by:

a positioning control enhancing increment, to said drag type resistance frictional force component that operates to enhance resistance to said relative movement of said mouse member over said surface of said mouse pad,

said positioning control enhancing increment to said drag type resistance frictional force being control enhancing means selected from the group consisting of:

the addition of 20 - 50% ~~of the~~ weight increase of said mouse member which weight increase is the result of the addition of about 20 - 50 grams of metal particles positioned in a housing of said mouse,

the addition of 20 - 50% weight increase of said mouse member which weight increase is produced by affixing to a top of a housing of said mouse an element comprising one or more cloth or plastic covered metal discs totaling about 20 - 50 grams in weight;

the addition of the combination of a magnetic member positioned on the surface of said mouse member adjacent to said surface of said mouse, and a ferromagnetic sheet positioned in said mouse pad and,

the addition of friction enhancing elements on protrusions situated on the surface of said mouse member that are adjacent to said mouse pad to increase said drag type resistance movement frictional force thereby increasing static and kinetic coefficients of friction between said mouse and said mouse pad.

22. (New) In a manually guided pointing operation in a display interface between a computer and a manually movable mouse input member positioned by a user, said interface including an intersection between a curved member on said manually movable mouse input member and a mouse pad stationary surface, said interface having associated signal generating circuitry operable to move a cursor in a display in response to relative motion of said curved member with respect to said mouse pad stationary surface, and wherein, said curved member has a peripheral surface in tangential contact with said mouse pad stationary surface, characterized by an improvement, for positioning control of movement of said mouse input member on said mouse pad stationary surface, means to enhance a drag type frictional force component, that resists said movement of said mouse on said mouse pad stationary surface, said means being selected from the group consisting of the addition of a combination of a magnetic member positioned on the surface of said computer mouse that is adjacent to said computer mouse pad and a ferromagnetic sheet positioned in said mouse pad; or, adding increased friction sliding surfaces to sliding support surfaces by an addition of protrusions on the surface of said computer mouse that are adjacent to said computer mouse pad at the surface of said computer mouse pad, which increases the static and kinetic coefficients of friction between support faces of said mouse and said mouse pad.